

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(43) 国际公布日:
2005年7月7日(07.07.2005)

PCT

(10) 国际公布号:
WO 2005/061531 A1

(51) 国际分类号⁷: C07K 14/00, 14/31, 19/00, C12N 15/62, 15/63, A61P 35/00

(21) 国际申请号: PCT/CN2004/000569

(22) 国际申请日: 2004年5月31日(31.05.2004)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
200310109829.7 2003年12月21日(21.12.2003) CN

(71)(72) 发明人/申请人: 孙嘉琳(SUN, Jialin) [CN/CN];
中国上海市武夷路519弄55号201室, Shanghai 200050 (CN)。

(74) 代理人: 上海专利商标事务所(SHANGHAI PATENT & TRADEMARK LAW OFFICE); 中国上海市桂平路435号陶家巷, Shanghai 200233 (CN)。

(81) 指定国(除另有指明, 要求每一种可提供的国家保护):
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW,

BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

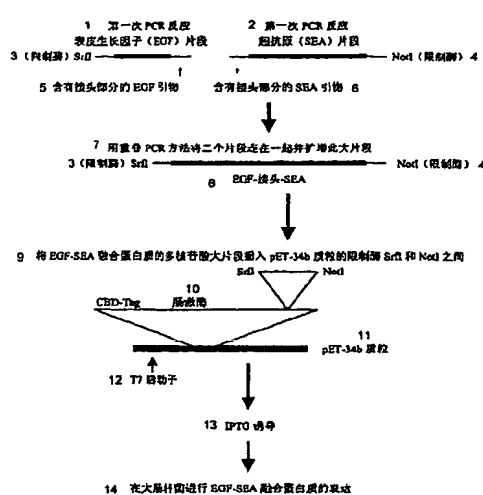
(84) 指定国(除另有指明, 要求每一种可提供的地区保护):
ARIPO(BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚专利(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 欧洲专利(AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

本国际公布:
— 包括国际检索报告。

所引用双字母代码和其它缩写符号, 请参看刊登在每期 PCT公报期刊起始的“代码及缩写符号简要说明”。

(54) Title: A SUPERANTIGEN FUSION PROTEIN USED FOR ANTITUMOR THERAPY AND THE PREPARATION THEREOF

(54) 发明名称: 一种可用以抗癌治疗的超抗原融合蛋白质及其生产方法



- 1 FIRST PCR THE FRAGMENT CODING EGF
- 2 FIRST PCR THE FRAGMENT CODING SEA
- 3 (RESTRICTION ENDONUCLEASE) SRFI
- 4 NOTI (RESTRICTION ENDONUCLEASE)
- 5 EGF PRIMER CONTAINING LINKER SEGMENT
- 6 SEA PRIMER CONTAINING LINKER SEGMENT
- 7 LINK TWO FRAGMENTS BY OVERLAP PCR AND AMPLIFY THIS LARGE FRAGMENT
- 8 EGF-LINKER-SEA
- 9 THE LARGE POLYNUCLEOTID FRAGMENT CODING THE EGF-SEA FUSION PROTEIN WAS INSERTED INTO THE PLASMID BETWEEN THE SITE OF SRFI AND NOTI
- 10 ENTEROKINASE
- 11 PET-34B PLASMID
- 12 T7 PROMOTOR
- 13 IPTG INDUCE
- 14 THE EGF-SEA FUSION PROTEIN EXPRESS IN E COLI

(57) Abstract: This invention provides a fusion protein containing: a) a ligand which promotes the growth of the cancer cell and corresponds to the receptor of cancer cell overexpression, an artificial screened polypeptid which has avidity and antagonism to the receptor of cancer cell or the polypeptid molecule which may affect directly to the cancer cell surface; b) a superantigen which may lead to the antitumor immunological reaction. A expression vector and a host cell containing this fusion protein, the preparation method thereof and the usage of this fusion protein to made the medicines for antitumor therapy or immunological reaction were also disclosed by the present invention.



(57) 摘要

本发明提出了一种融合蛋白，含有：a)促进癌细胞生长并与癌细胞过度表达受体相对应的配体、与癌细胞受体有亲和力及有拮抗作用的人工筛选多肽或直接与癌细胞表面相互作用的多肽分子；b)能引起抗癌的免疫反应的超抗原。还公开了含有该融合蛋白的表达载体和宿主细胞，制备这种融合蛋白的方法，以及该融合蛋白用于制备治疗癌症或免疫反应的药物的用途。